



Narcotics Registration and Payment Information System at BNN City Banjarmasin Clinic

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ABSTRACT

In the clinic, the BNN Banjarmasin urine testing service is still manual, especially the registration and payment. It takes a long time and leads to a stay in service. The method in this research is a case study. Then a web-based computerised system is built so that for self-filled data in registrations and transactions, there is no need to bother with handwriting, and documents will be automatically recorded on the system. The author recommends that businesses integrate applications that are designed into their operations because doing so would increase the efficiency of all business transactions and allow the agency and patients to directly benefit from the system.

INTRODUCTION

The development of information systems technology is not unusual; many government agencies or even business companies facilitate their work with information systems (Fitria et al., 2024). Information systems are systems that combine human work and the use of technology in an effort to support management and operational activities. Neither the new archives nor the new data will be well stored and recorded, making it easy for users to find the data and information they need (Firman et al., 2016; Fitria et al., 2022). In the National Narcotics Agency of Banjarmasin City, in particular the Rehabilitation Section, which is responsible for rehabilitating people who are trapped or addicted to drugs, One of the activities being carried out is to perform urine tests or drug tests for rehabilitation patients and the community that need a Statement of Narcotics Examination Results (SKHPN) at the Clinic of Banjarmasin.

The activity found a problem with the manual urine test service, especially the registration and payment section. Patients or communities wishing to undertake narcotics tests must register with paper leaflet media and process payment with a handwritten note. It takes a long time and leads to a standstill in the service. So services and transactions like this are no longer effective, both for officers and patients. Then a web-based computerised system is built so that for self-filled data in registrations and transactions, there is no need to bother with handwriting, and documents will be automatically recorded on the system (Fitria & Liana, 2013; Otinur et al., 2017). This system comes under the name “Narcotics Registration and Payment Information System at BNN City Banjarmasin Clinic”.

LITERATURE REVIEW

A lot of research has been done on the registration system, including a case study of patient registration online at a clinic, which discusses how manual registration in medical clinics is still using sheets of paper. The weaknesses of this system cause various problems, such as the long time it takes to find patient data and medical records that can be accessed by anyone, so the security and authenticity of the data are questionable. To solve the problem, create a medical recording programme (Gunawan & Somya, 2022; Rohman et al., 2022). A payment system is a system consisting of a set of rules, institutions and mechanisms, used to carry out a transfer of funds in order to fulfil an obligation arising from an economic activity. There are several kinds of payment methods that we can choose from, either cash or non-cash. The development of noncash transactions in Indonesia is a great indication because of its population, which is also very large, reaching 250 million people (Pramudita, 2016; Ramadhani et al., 2022). Information systems itself can assist businesses in making decisions. Based on the conducted research, it can be inferred that businesses that used to manually record transactions are now compelled to apply technological advancements in their operations due to the growing prevalence of technology. Due to the need for manual data entry and recapitulation, manual accounting records are not perfect and have slow reporting times (Fitria et al., 2023).

METHODOLOGY

Types of Research

The method in this research is a case study because the researchers directly took information from the activities of the National Narcotics Agency (BNN) clinic in Banjarmasin City.

System Development Method

There are multiple steps in the application design process' research methodology. The System Development Life Cycle (SDLC) system development model is used in this study's software development (Fitria & Nisa, 2017). In Figure 1, the waterfall model is displayed.

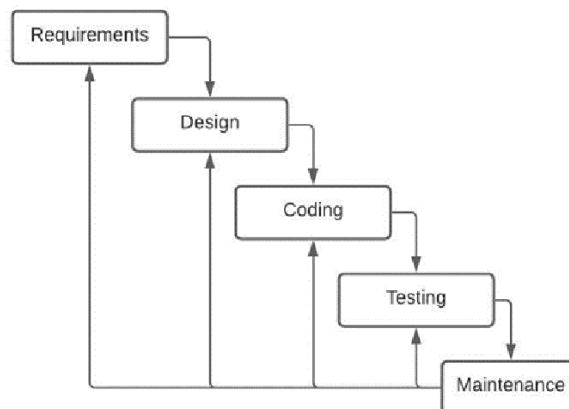


Figure 1. Waterfall Model

At the analysis stage, the user needs are analyzed as the basis for planning and developing the system to be built. The design process is followed to give an overall picture of the coding as an image of what will be built or done until the appearance is designed. After the program encoding is done, the built system will be tested to see if it is in line with the plan or not. And at the final stage of the maintenance process, which is the development, repair, and maintenance phase of the system that has been built (Amrullah et al., 2021).

RESEARCH RESULT

The Narcotics Inspection Registration and Payment Information System at BNN Kota Banjarmasin Clinic was created to facilitate the registration process and payment transactions. Which works to make the work of both officers and patients more efficient without demanding much effort and time. Whereas with manual systems, many use papers that are vulnerable to corruption or loss, as well as payment systems where notes that must be made or written first are available. With this system, the documents will be stored directly in the database, and the officers will only enter the documents. The system's difference from before the application existed until the application was built lies in registration without using a sheet of paper. And on the pay note, the officer doesn't give a physical bill to the patient; this system is all done digitally.

The view on the system has an admin page and a user page. The same page consists of a login page. On the admin page, the dashboard page displays the menus related to the urine test report. Then it consists of the user data menu,

the patient's urine testing data, and the user's cash input report. In the user database menu, there are form features for the user and the patient list, as well as the user list. The urine tests patient data menu features the list of patients who have already registered and paid, the form feature to enter documents, and the document list. On the user page, the dashboard page displays the registration menus and documents. The registration menu shows the urine test list form feature. The document menu features the document download feature.

User in The Application

Users and user roles in the application are explained in the table below:

Table 1. Users and user roles		
No.	User	User Roles
1.	Admin	<ul style="list-style-type: none"> - Create a user account every time a new patient registers to log in to the account. - Delete the patient list. - Input and change SKHPN documents and payment notes in the patient list - Make periodic cash incoming reports every month
2.	Patient	<ul style="list-style-type: none"> - Input urine test registration data on the urine test registration form - Download SKHPN documents and payment receipts

Features in the Application

Features in the application are explained in the table below:

Table 2. Features in the application		
No.	Features	Explanation
1.	Login Acces	- To access login
2.	Form to:	
	a. User	- To create a user account for patients who want to log in
	b. Urine test list	- To register for a urine test
	c. Document entry form	- To input urine test results in the form of SKHPN documents and payment receipts
3.	List:	
	a. Patient	- To see a list of patients who have registered for a urine test
	b. User	- To view registered account data
	c. Patient has paid	- To see a list of patients who have paid based on the specified time period
	d. Document	- To display a list of SKHPN and notes

4. Cash incoming report - To find out the financial reports that come in every month
5. Control features (Validation of user access rights) - If the user is at the admin level, he will access the admin dashboard and if the user is at the patient level, he will access the patient dashboard

Flowchart

Below is a plan for payment flow, narcotics inspection and issuance SKHPN:

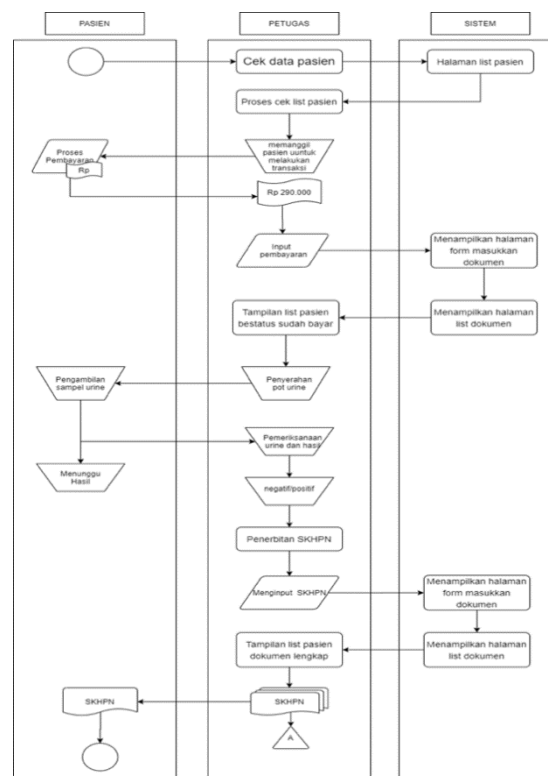


Figure 2. Plan for payment flow, narcotics inspection and issuance SKHPN

The flow plan above is a continuation of the registration process. Followed by the officer checking the patient data on the patient list page, the officer will check the data that has been entered. After the checking process is complete, the officer will call the patient's name to collect payment. After the cash transaction is complete, the officer will create a payment note and input it directly into the system on the document entry form page. After the note has been saved, the page will display a list of documents that have been uploaded. Then return to the patient list page which shows the patient's payment status. After the document input process is complete, the officer will hand over the urine pot to the patient for taking a urine sample. After the patient has finished taking the urine sample, the sample will be handed over directly to the officer. Besides that, patients will wait for the results for some time. After the results come out, the officer will issue a SKHPN according to the previous data. And the SKHPN is input directly into the system with the same flow as the payment receipt input

process. After the input process is complete, the SKHPN is printed in 2 copies, 1 copy for archives and 1 copy handed over to the patient.

Aplication

The following is a display of the information system being built:

1. Login page

Below is the login page display:

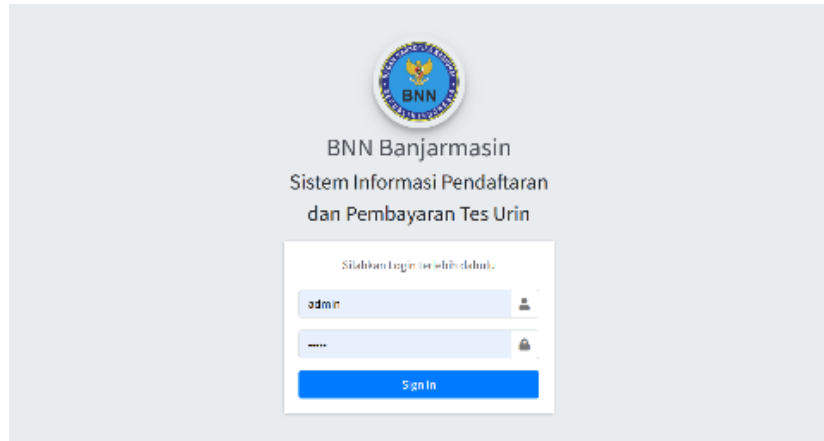


Figure 2. Login page

The login page on a system is the first gateway that users must go through to access the features available in the system. On this page, users are required to enter their credentials, usually a username and password, to prove their identity. A good login page is not only functional but also user-friendly, with an intuitive and responsive interface. Security is an important aspect to consider in login page design to protect user data and prevent unauthorized access.

2. Dashboard admin page

Below is the dashboard admin page display:



Figure 3. Dashboard admin page

The admin dashboard page is the main control center for system administrators to manage various operational and content aspects. On this page, administrators can access and control data, users, and other features related to system functions. The admin dashboard page is designed to provide quick and easy access to all the tools and information an administrator needs to run and

maintain the system. An intuitive and responsive interface is essential to ensure admins can work efficiently and effectively.

3. User data page

Below is the user data page display:

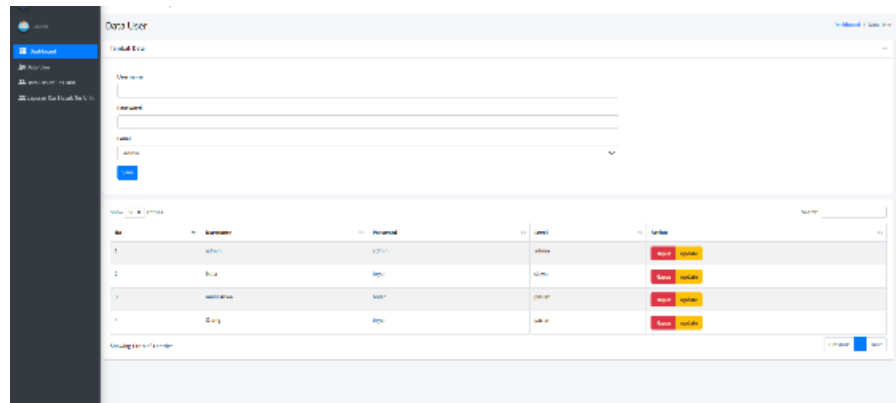


Figure 4. User data page

The user data page is a feature in the system that allows admins to manage information about registered users. On this page, admins can view, edit, and manage user data to ensure the system runs smoothly and users have a good experience. The user data page is designed to give admins complete control over user information and ensure that all user data is managed properly. The intuitive interface and comprehensive features help admins manage users efficiently and effectively.

3. Cash incoming report page

Below is the cash incoming report page display:

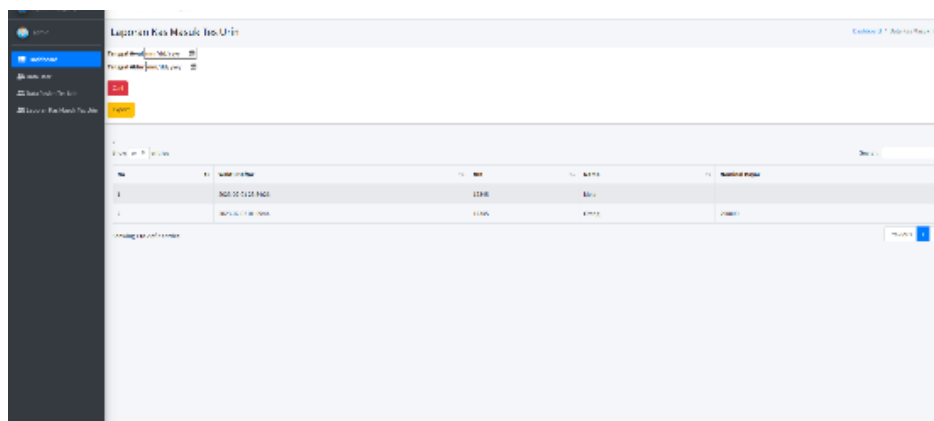


Figure 5. Cash incoming report page

The cash incoming report page is part of the financial management system used to track and analyze all cash transactions entering the organization. This page provides complete details regarding the source and amount of money received, helping in better and transparent financial management. The cash inflow report page is designed to provide a clear and detailed picture of cash inflow within the organization. By providing comprehensive analysis and

tracking tools, this page helps ensure transparency, accuracy and efficiency in financial management.

4. User dashboard page

Below is the user dashboard page display:

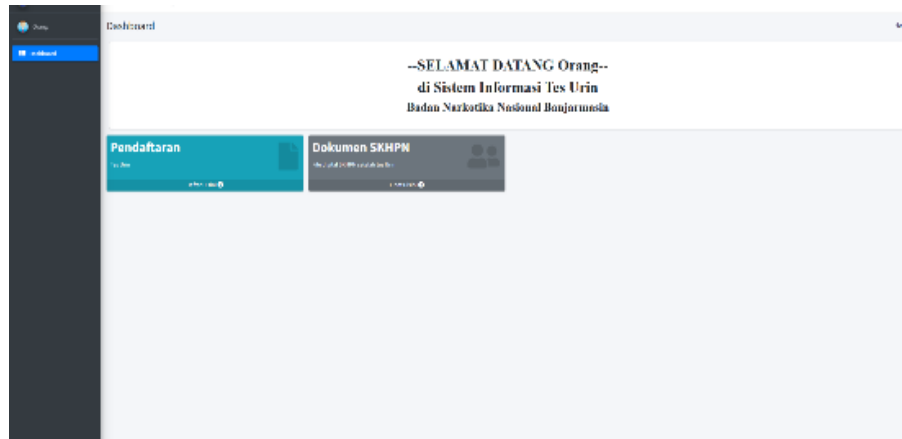


Figure 6. User dashboard page

The user dashboard page is the main interface accessed by users after they log in to the system. This dashboard is designed to give users quick and easy access to key features and information that is relevant to them. The user dashboard page is designed to provide an intuitive, efficient, and organized user experience. By providing easy access to important information and frequently used tools, dashboards help users interact with the system more effectively and productively.

DISCUSSION

The Narcotics Examination Registration and Payment Information System at the Banjarmasin City BNN Clinic was created to simplify the registration process and payment transactions. Which functions to make the work of both staff and patients more efficient without requiring a lot of energy and time. Where the manual system uses a lot of paper which is vulnerable to damage or loss, as well as a payment system where notes must be made or written first before they are available. With this system, documents will be directly stored in the database and the officer will only input the documents. This is in line with previous research which states that having an information system can simplify the process of financial recording and patient data collection (Fitria et al., 2023; Hendarti et al., 2009; Ichsan & Fitria, 2021).

CONCLUSIONS AND RECOMMENDATIONS

The system facilitates the input of personal data through electronic media such as computers and mobile phones, and documents in the form of soft files can be accessed at any time. This is also in line with research that has been conducted previously. This proves that the existence of an information system can make work that was previously done manually easier to become more effective and efficient (Hendarti et al., 2009; Nopriandi, 2018; Prasaja, 2014). Two things that are highlighted in this system are registration and payment. This

system uses multiusers, i.e., admin and patient. The admin here has the privilege that on the registration system, admin has access rights when logging into the patient account because admin plays the role of creating user accounts. While users only have the right to enter data themselves in the urine test list form and download documents. The author recommends that businesses integrate applications that are designed into their operations because doing so would increase the efficiency of all business transactions and allow the agency and patients to directly benefit from the system.

ADVANCED RESEARCH

In this study the author only created a system for registering and paying for patient examinations. It is hoped that in further research this system can be developed as a system that can record patient examination history and inventory of patient examination equipment, so that it can complete the function of the system.

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